7724/14GT8

Twin Diode—High-Mu Triode

9-PIN MINIATURE TYPE

For Mobile-Communications Equipment

GENERAL DATA

Electrical:

Heater Characteristics and Ratings *(Design-Maximum Values):*

Voltage (AC or DC)	14.0[a]		volts
Current at heater volts = 14.0	0.150		amp
Peak heater-cathode voltage (Each unit):			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200[b]	max.	volts

Direct Interelectrode Capacitances:[c]

Triode Unit:			
Grid to plate	1.8		μμf
Grid to cathode and heater	1.6		μμf
Plate to cathode and heater	0.24		μμf
Diode Units:			
Diode-No.1 plate to triode grid	0.09	max.	μμf
Diode-No.2 plate to triode grid	0.07	max.	μμf
Either diode cathode to all other tube electrodes	6.5		μμf
Diode plate to cathode and heater (Each unit)	2.4		μμf

Characteristics, Class A_1 Amplifier (Triode Unit):

Plate Voltage	250	volts
Grid Voltage	-3	volts
Amplification Factor	72	
Plate Resistance (Approx.)	72000	ohms
Transconductance	1000	μmhos
Plate Current	0.7	ma

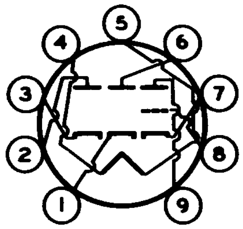
Mechanical:

Operating Position	Any
Type of Cathodes	Coated Unipotential
Maximum Overall Length	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip)	1-9/16" ± 3/32"
Diameter	0.750" to 0.875"
Dimensional Outline	See *General Section*
Bulb	T6-1/2
Base	Small-Button Noval 9-Pin (JEDEC No.E9-1)

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Basing Designation for BOTTOM VIEW. 9KR

Pin 1 - Diode-No.2 Cathode
Pin 2 - Diode-No.1 Plate
Pin 3 - Diode-No.1 Cathode
Pin 4 - Heater



Pin 5 - Heater
Pin 6 - Diode-No.2 Plate
Pin 7 - Triode Cathode
Pin 8 - Triode Grid
Pin 9 - Triode Plate

TRIODE UNIT — AMPLIFIER — Class A_1

Maximum Ratings, *Design-Maximum Values:*

PLATE VOLTAGE.	330 max.	volts
GRID VOLTAGE:		
Positive-bias value.	0 max.	volts
PLATE DISSIPATION.	1.1 max.	watts

DIODE UNITS — Two

Values are for Each Unit

Maximum Ratings, *Design-Maximum Values:*

PLATE CURRENT.	5 max.	ma

Characteristics, Instantaneous Value:

Plate Current for plate volts = 5.	18	ma

SPECIAL RATINGS & PERFORMANCE DATA

Heater-Cycling:

Cycles of Intermittent Operation . . . . . 2000 min. cycles

This test is performed on a sample lot of tubes from each production run under the following conditions: heater volts = 18.9 cycled one minute on and one minute off, heater 135 volts positive with respect to cathode, and all other elements connected to ground. At the end of this test, tubes are checked for heater-cathode shorts and open circuits.

Transconductance at Reduced Heater Voltage (Triode Unit):

Average Value. . . . . 900 μmhos

With heater volts = 10.8, plate volts = 250, and grid volts = -3.

[a] For satisfactory operation, it is recommended that the heater be operated within the voltage range of 12.0 to 15.0 volts.

[b] The dc component must not exceed 100 volts.

[c] Without external shield.